

## NEUROLOGY

### Chapter 6, CHARTER on TRAINING of MEDICAL SPECIALISTS in the EU

#### REQUIREMENTS for the Speciality Neurology

To replace the previous document from 2007

1. Definition and scope of neurology
2. European professional advisory organization for neurology at EU level
3. Training and lifelong learning
4. General aspects of training
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#### Article 1: Definition and Scope of Neurology.

Neurology is medical speciality dealing with the inborn, developmental and acquired, acute and chronic diseases of the central and peripheral nervous system and skeletal muscle at all ages. Neurology covers their diagnosis, the understanding of underlying mechanisms and management. Neurology is a constantly evolving field parallel to the development of the neurosciences and overlaps with numerous other medical specialties, in particular neurosurgery, psychiatry, clinical genetics, paediatrics, rehabilitation, internal medicine and public health.

#### Article 2: European Professional Advisory Organization for Neurology

2.1. The European professional advisory organization for neurology is the European Board of Neurology (EBN)/Section of Neurology of the UEMS (Union Européenne des Médecins Spécialistes). It communicates with the executive Bureau of the UEMS and serves in the interest of the various national professional and scientific neurological societies of the European Union and associated countries. For the updating of the present document the advice of the European Federation of Neurological Associations (EFNA) and the European Association of Young Neurologists and Trainees (EAYNT) was also sought.

2.2. The aims of the EBN with regard to education and training are to ensure that minimal standards for the qualification of European neurologists are achieved in all European Union and other associated countries.

The following measures are taken:

2.2.1. – As a general recommendation to all in charge of neurological training at any level, the EBN encourages the application of modern principles of educational sciences.

2.2.2. – Providing recommendations for the selection of the candidates to enter postgraduate neurology training and for the requirements for training institutions and for those who are in charge of training in neurology.

2.2.3. – Recommending that training institutions should have a system of visitation/external peer review. The EBN recommends and updates standards for, and offers visitations of training institutions at a European level. Having successfully completed a visitation the institution becomes an UEMS-EBN accredited department for specialist training in neurology.

2.2.4. – Holding a European Board Examination annually for recently qualified EU neurologists or trainees fulfilling the requirements for certification as neurologist. The examination can be opened to non-EU neurologists or trainees fulfilling the requirements for certification as neurologist according to the current UEMS EBN policy. The EBN examination is considered as an additional sign of excellence without legal value but national authorities can adopt it as equivalent to or instead of their national exam or accept it as an exit exam if no national equivalent exists.

2.2.5 – Recommending standards on communication with patients, their carers, their associations and the general public and also on ethical issues to ensure a high level of professionalism in all aspects of a neurologist's activity.

### Article 3: Training and Lifelong Learning

Neurology is a compulsory part of pregraduate (university) training. Postgraduate training can be divided into specialist residency training and continuous medical education or CME/CPD. This document focuses on the postgraduate training (residency) of neurologists.

#### 3.1. Undergraduate level

Neurology deals with acute and chronic diseases. Training in neurology must be an essential part of university curricula devoted to medical training. A minimum number of hours/credits and case evaluations should be part of the general medical training programme. At pregraduate level the major neurological diseases should be covered and teaching on basic history taking and clinical neurological examination should be included. Every university should have a clearly defined curriculum for neurology including teaching of practical skills.

#### 3.2. Postgraduate level

Postgraduate neurological training comprises a minimum period of 4 years of clinical neurology (see art 4.4), and at least 1 additional year to be devoted to related disciplines (see art 4.5), and furthermore, there should be a lifelong participation in continuous medical education/professional development.

##### 3.2.1. Training/Residency

The requirements and minimum standards for residency training in neurology are the subject of articles 4-7.

### 3.2.2. CME/CPD

Continuous medical education (CME) and continuous professional development (CPD) to keep updated with developments in diagnosis and management of neurological conditions as well as of global professional skills is an obligation of the accredited neurologist. Type, duration, content and monitoring of CME/CPD activity fall under the authority of national medical societies (in some countries government health bodies), which should consider the general recommendations of the UEMS. The UEMS provides European Accreditation of CME (EACCME) for international events according to defined quality standards.

It is recommended that trainees in neurology are introduced to CME/CPD during their postgraduate training period.

## Article 4: General Aspects of Training

4.1. In order to train the most suitable individuals for the medical speciality of neurology, selection principles should be set up on a national basis. The selection procedure must be transparent and application must be open to all persons who have completed basic medical training (for further details see article 8).

4.2. A total training time of 5 years including a minimum of 4 years of clinical neurology should be mandatory before achieving full registration as a clinical neurologist.

4.3. If the director of training agrees that neurology training can be followed part time, the total training time will increase proportionally.

4.4. The 4 years of training in clinical neurology should include acute, unselected and planned selected neurological admissions, emergency and intensive care and rehabilitation of neurological patients. Trainees should be exposed to balanced proportions of inpatients and outpatients with a wide spectrum of neurological diseases and have the opportunity to see patients for follow-up.

The training should comprise at least 6 months spent in an outpatient department.

Training periods totalling up to 6 months spent in relevant clinical neuro-disciplines like paediatric neurology, emergency and neuro-intensive care, neuro-rehabilitation or neurosurgery can be considered as belonging to the 4 years of training in clinical neurology.

4.5. The additional 5<sup>th</sup> year (not necessarily chronologically last of the training period) of the total training time may be spent as described in § 4.4., but also in other specialties such as neuro-radiology, clinical neurophysiology, psychiatry or research relevant for neurology leading to scientific publications.

4.6. The training and teaching instruments for the training programmes should be in line with the recommendations of modern educational science (see articles 5 to 7).

4.7. The quality of the training may benefit if it takes place in different institutions with rotations within one country or some time spent abroad, provided that all training institutions are nationally certified. The responsible authorities or training institutions should facilitate the rotations and ensure that the rotation system is useful for the trainee's curriculum and avoid unnecessary duplication.

4.8. The exact training curriculum is the prime responsibility of the national boards. The training programmes should be in line with the EBN's recommended core curriculum, which undergoes regular updating. Some general recommendations on training content are mentioned in article 7.

4.9. The prime aim of the specialty training in neurology is the acquisition of broad neurological knowledge and skills. The development of a particular competence in a subspecialty area of neurology is to be encouraged and could be started during specialty training.

4.10. As neurologists are often involved in the long-term management of complex chronic disorders, trainees should get acquainted with the concepts of WHO's International Classification of Functioning, Disability and Health (ICF). This is important to be able to take the medical lead in the multidisciplinary team approach while respecting the specific role, knowledge and skills of the other professionals.

4.11. During the training period a continuous evaluation of knowledge, abilities and skills should be performed and the EBN recommends that the EBN exit exam is taken after completion of the training period as a sign of excellence. For more details on assessment and monitoring of trainees (see § 7.5 and 2.2.4).

## Article 5: Requirements for Training Institutions

5.1. Training institutions have to be recognised by their national monitoring authority, and should take part in a national quality assurance programme, which should include visitations or some other form of external peer review according to the recommendations of the EBN (see § 2.2.3).

5.2. Training must take place in an institution or group of institutions, which together offer the trainee practice in the full range of the speciality in inpatient, day- and outpatient care. Related specialities must be available to provide trainees with the opportunity to develop their skills in a team approach to patient care.

5.3. The ratio between the number of specialists in the teaching staff and the number of trainees at any given moment should be tailored such as to provide close personal monitoring of the trainees as well as adequate exposure of the trainees to sufficient practical work. Every trainee should be assigned to a personal clinical mentor/educational supervisor during all parts of his curriculum.

## Article 6: Requirements for the Director of Training and Educational Supervisors

6.1. Every training institution should have a director of training, who may or may not be the head of department. The director of training should be a (have been) practising neurologist for at least 5 years after specialist accreditation, have a sound practical knowledge of the whole field of neurology and must be recognised by the national monitoring authority. The medical staff acting as educational supervisors should be actively practising neurology and devoted to residency training.

6.2. The director of training and the educational supervisors should have taken part in courses for trainers and follow regular updating in educational and team leader skills.

6.3. They should meet at least twice a year with all trainees to openly discuss all aspects of training including the evaluation and approval of their log books and portfolios.

## Article 7: Training Methods and Content

7.1. In addition to the participation in the daily routine of investigating and treating inpatients and outpatients (apprenticeship type teaching), the training centre should offer to the trainee space and opportunities for practical and theoretical study, including research. Access to the internet, databases and to adequate national and international professional literature should be provided (library), as should be space, equipment and guidance for practical training of techniques.

7.2. While actively cultivating traditional teaching such as regular grand rounds and weekly structured teaching sessions, training institutions should be proactive in introducing new training methods according to the modern principles of adult learning.

A programme of formal bleep-free regular teaching sessions to cohorts of trainees could include

- Case presentations
- Lectures and small group teaching
- Grand Rounds
- Clinical skills demonstrations and teaching
- Critical appraisal and evidence based medicine and journal clubs
- Research and audit projects
- Joint specialty meetings

7.3. To build up their experiences, trainees should be involved in the management of a sufficient number of inpatients, day care patients and outpatients. They must perform a minimum number of instrumental diagnostic procedures/skills according to national regulations: Nerve conduction studies, Electromyography, ultrasound, Electroencephalography and lumbar punctures are suggested.

7.4. Trainees in neurology should learn about modern aspects of patient-centred care:

- Quality of life: Definition and instruments of health related quality of life and what quality of life research has shown in neurological illnesses.
- Information: Knowledge on what information patients want, when they want it and by whom.
- Communication: Patients' communication difficulties, what good patient communication looks like and why good communication matters. To learn about breaking bad news and discuss end-of-life issues.
- Counselling and other forms of psychosocial support: recognize patients who need more intense support by individual and group counselling and supporting families of people with neurological illness.
- Self-management: Why patients want to take some control of their own care and its relationship to complementary and alternative medicines.
- The role of palliative care in chronic neurological disorders (ALS, neuro-oncology, neurodegenerative disorders, etc.)
- The role of patient organisations: What they are, what is their role and how they can help patients, carers and health professionals.

7.5. Assessment and monitoring of trainees

Training institutions should provide a system of appraisal – at entry into every part of the programme, at mid point and at the end. A structured goal setting for each training period according to the curriculum at its evaluation is recommended.

All trainees should keep a logbook to record their clinical activity – emergency admissions, ward work and outpatients seen. This ensures that the trainees and their supervisors can identify areas of the curriculum that have not been covered.

In addition it is recommended that the trainee documents the following structured assessments

- Mini CEX (observed clinical skills)
- DOPS (directly observed procedural skills, e.g. lumbar puncture)
- Case based discussions
- Multisource feedback (from colleagues, nurses and other professionals)
- Patient feedback from in- and outpatients

The minimal numbers per year of each of these items should be determined nationally.

7.6. Medical research: Training institutions should encourage medical research in basic and clinical neurological sciences.

The objective is to give the opportunity to the trainee to learn scientific methodology and to gain experience in conducting a research project. The project should result in at least one publication. Trainees should also be encouraged to write and submit case reports since this is an excellent way to improve clinical observation as well as writing skills.

## Article 8: Requirements for Trainees

8.1. Before entering the training programme for neurology, candidates should have successfully completed their graduate training and have some practical training in internal medicine.

8.2. Entry into the training programme for neurology depends on national regulations and should be transparent.

8.3. The number of trainees in national programmes should reflect the projected manpower needs in neurology. These depend on the organization of the national health care system and the demographics of the existing neurological manpower, which should be sufficient so that patients with neurological diseases have timely access to specialist care.

8.4. The trainee must have sufficient linguistic ability to be able to communicate with patients and colleagues. He/she should be able to work in the social and cultural context of the country in which he/she is based.

8.5. Adequate language, computer and internet skills are basic requirements for accessing and studying the international medical literature and communicating with foreign colleagues.

8.6. He/she must be able to communicate and work in an interdisciplinary setting.

8.7. Basic communication skills with patients and carers should have been acquired before entering specialty training and will be subject of continuous professional development. Experience with patient organisations is encouraged.

8.8. Basic knowledge of scientific methodology, skills in critical interpretation of study results and experience with current methods such as evidence-based medicine are required.

8.9. The acquisition of organisational skills and knowledge of local medico-legal issues, as well as ethical and palliative issues is encouraged.

## Article 9: CME/CPD

9.1. CME or CPD as a form of life-long learning is encouraged in all member countries.

9.2. The generally available guidelines for CME of the UEMS should be followed.

9.3. CME is not restricted to meeting or congress attendance. Other learning methods such as self directed reading, internet-based learning modules and practical workshops should all be included. Delivering lectures on teaching courses or writing articles or book chapters can also be recognized as CME.

9.4. A minimum of hours per time unit (period) devoted to CME/CPD should be suggested by the national society.

9.5. The consequences for an individual neurologist not participating in CME programmes depend on national regulations. The UEMS EBN has a neutral position in this respect, but recommends monitoring and advising such individuals who have not fulfilled their nationally set guidelines.

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